### PATENT COOPERATION TREATY

# **PCT**

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 3175WO0P	FOR FURTHER ACTION	See item 4 below	
International application No. PCT/JP2004/007667	International filing date (day/month/year) 27 May 2004 (27.05.2004)	Priority date (day/month/year) 28 May 2003 (28.05.2003)	
International Patent Classification (8t See relevant information in Form I	h edition unless older edition indicated) PCT/ISA/237		
Applicant TAKEDA PHARMACEUTICAL CO	MPANY LIMITED		_

This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).		
This REPORT consists of a tot	al of 6 sheets, including th	is cover sheet.
In the attached sheets, any refeto to the international preliminary	rence to the written opinion report on patentability (Ci	n of the International Searching Authority should be read as a reference hapter I) instead.
This report contains indications	relating to the following i	items:
Box No. I	Basis of the report	
Box No. II	Priority	
Box No. III	Non-establishment of applicability	opinion with regard to novelty, inventive step and industrial
Box No. IV	Lack of unity of inven	tion
Box No. V	Reasoned statement un applicability; citations	nder Article 35(2) with regard to novelty, inventive step or industrial and explanations supporting such statement
Box No. VI	Certain documents cite	ed
Box No. VII	Certain defects in the i	international application
Box No. VIII	Certain observations o	n the international application
The International Bureau will conot, except where the applicant date (Rule 44bis .2).	ommunicate this report to makes an express request	designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but under Article 23(2), before the expiration of 30 months from the priority
	<del>-</del>	Date of issuance of this report 16 March 2006 (16.03.2006)
34, chemin des Col	ombettes	Authorized officer  Masashi Honda
nile No. +41 22 740 14 35		Telephone No. +41 22 338 70 10
	This REPORT consists of a total In the attached sheets, any refer to the international preliminary  This report contains indications  Box No. II  Box No. II  Box No. IV  Box No. VI  Box No. VI  Box No. VII  Box No. VII  The International Bureau will conot, except where the applicant date (Rule 44bis .2).	This REPORT consists of a total of 6 sheets, including the In the attached sheets, any reference to the written opinio to the international preliminary report on patentability (C  This report contains indications relating to the following is Box No. I Basis of the report  Box No. II Priority  Box No. II Non-establishment of applicability  Box No. IV Lack of unity of inventing Box No. VI Reasoned statement unapplicability; citations  Box No. VI Certain documents cital Box No. VII Certain defects in the international Bureau will communicate this report to not, except where the applicant makes an express request date (Rule 44bis .2).  The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland mile No. +41 22 740 14 35

Form PCT/IB/373 (January 2004)

#### PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY To: **PCT** WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1) Date of mailing (day/month/year) Applicant's or agent's file reference FOR FURTHER ACTION 3175WOOP See paragraph 2 below International application No. International filing date (day/month/year) Priority date (day/month/year) PCT/JP2004/007667 27.05.2004 28.05.2003 International Patent Classification (IPC) or both national classification and IPC Applicant TAKEDA PHARMACEUTICAL COMPANY LIMITED This opinion contains indications relating to the following items: Box No. I Basis of the opinion Box No. II Priority Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. IV Lack of unity of invention Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial Box No. V applicability; citations and explanations supporting such statement Box No. VI Certain documents cited Box No. VII Certain defects in the international application Box No. VIII Certain observations on the international application 2. **FURTHER ACTION** If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later. For further options, see Form PCT/ISA/220. 3. For further details, see notes to Form PCT/ISA/220. Name and mailing address of the ISA/JP Authorized officer

Telephone No.

Facsimile No.

International application No.
PCT/JP2004/007667

Box	x No. I	Basis of this opinion
1.	With	regard to the language, this opinion has been established on the basis of the international application in the language in which it was unless otherwise indicated under this item.
		This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under
	-	Rule 12.3 and 23.1(b)).
2.	With inver	n regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed intion, this opinion has been established on the basis of:
	a.	type of material
		a sequence listing
		table(s) related to the sequence listing
	b.	format of material
		in written format
		in computer readable form
	c.	time of filing/furnishing
		contained in the international application as filed.
	}	filed together with the international application in computer readable form.
		furnished subsequently to this Authority for the purposes of search.
3.		In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4.	Addit	tional comments:
;		
ı		

International application No.
PCT/JP2004/007667

Box No. 1	II Non-establishment of opini	ion with regard to novelty, inventive step and industrial ap	plicability
The quest applicable	tions whether the claimed invention as have not been examined in respect of:	appears to be novel, to involve an inventive step (to be no	on obvious), or to be industrially
	the entire international application		
$\boxtimes$	claims Nos. <u>52-56, 66</u>		
becaus	the said international application, or t relate to the following subject matter	the said claims Nos. <u>52-56, 66</u> which does not require an international preliminary examination	
		er of claims 52-65 pertains to a method of	
		subject matter of claim 66 pertains to a me	ethod of
	treatment of the human b	oody by therapy.	
	are so unclear that no meaningful opin	indicate particular elements below) or said claims Nos.  inion could be formed (specify):	
	the claims, or said claims Nos.  by the description that no meaningful	opinion could be formed.	are so inadequately supported
$\boxtimes$	no international search report has bee	en established for said claims Nos. 52-56, 66	
		uence listing does not comply with the standard provided for i	in Annex C of the Administrative
	the written form	has not been furnished	
ı		does not comply with the standard	
	the computer readable form	has not been furnished does not comply with the standard	
	the tables related to the nucleotide ar technical requirements provided for ir	nd/or amino acid sequence listing, if in computer readable for names C-bis of the Administrative Instructions.	rm only, do not comply with the
	See Supplemental Box for further deta	ails.	

International application No.
PCT/JP2004/007667

Statement		
Novelty (N)	Claims 8, 11, 21, 24, 34, 37, 58-	
	Claims $\frac{1-7}{63}$ , $\frac{9-10}{67}$ , $\frac{12-20}{22-23}$ , $\frac{2}{2}$	25-33, 35-36, 38-51, 57, 60,
Inventive step (IS)	Claims	
	Claims 1-51, 57-65, 67	
Industrial applicability (IA)	Claims 1-51, 57-65, 67	
	Claims	

2. Citations and explanations:

Document 1: WO 01/98494 A1 (Takeda Chemical Industries, Ltd.) 27 December 2001 Document 2: WO 02/102847 A1 (Takeda Chemical Industries, Ltd.) 27 December 2002

The subject matter of claims 1-7, 9-10, 12-20, 22-23, 25-33, 35-36, 38-51, 57, 60, 63 and 67 do not appear to be novel based on documents 1 and 2. Documents 1 and 2 describe an antibody to the ligand for GPR8, and an antibody to the ligand for GPR7.

The subject matter of claims 1-51, 57-65, and 67 do not appear to involve an inventive step based on documents 1 and 2. Documents 1 and 2 describe an amino acid sequence of the ligand for GPR8, an amino acid sequence of the ligand for GPR7, and a production method for the antibody to aforementioned ligand. Producing a synthesized peptide based on the amino acid sequences described in documents 1 and 2, then producing an antibody to the ligand by using the synthesized peptide as an immunogen can be easily achieved by a party skilled in the art.

International application No.
PCT/JP2004/007667

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x No.	VI Certain documents cited			
Сег	tain published documents (Rule 43bis.1 and	d 70.10)		
	Application No. Patent No.	Publication date (day/month/year)	Filing date (day/ <i>month/year</i> )	Priority date (valid clain (day/month/year)
	WO 03/082907 A1	09.10.2003	28.03.2003	29.03.2002
	[P, X]			
Non	n-written disclosures (Rule 43bis.1 and 70.9)			
	Kind of non-written disclosure	Date of non-written di	isclosure referring	of written disclosure to non-written disclosure
		(day/month/yea		(day/month/year)

#### PATENT COOPERATION TREATY

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#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 0344/04/PCT	FOR FURTHER ACTION	See item 4 below
International application No. PCT/EP2004/009729	International filing date (day/month/year) 01 September 2004 (01.09.2004)	Priority date (day/month/year) 03 September 2003 (03.09.2003)
International Patent Classification (8th See relevant information in Form I	h edition unless older edition indicated) PCT/ISA/237	
Applicant TECHNISCHE UNIVERSITĀT ILM	MENAU	

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).		
2.	This REPORT consists of a total	d of 15 sheets, including this cover sheet.	
	In the attached sheets, any refer to the international preliminary	ence to the written opinion of the International Searching Authority should be read as a reference report on patentability (Chapter I) instead.	
3.	This report contains indications	relating to the following items:	
	Box No. I	Basis of the report	
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	Box No. IV	Lack of unity of invention	
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	Box No. VI	Certain documents cited	
	Box No. VII	Certain defects in the international application	
	Box No. VIII	Certain observations on the international application	
4.	The International Bureau will conot, except where the applicant and date (Rule 44bis .2).	ommunicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but makes an express request under Article 23(2), before the expiration of 30 months from the priority	

	Date of issuance of this report 26 September 2006 (26.09.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  Ellen Moyse
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Form PCT/IB/373 (January 2004)